SP-688

Broadband 4-in-1 SOHO IAD

The SP-688 is the first wireless SOHO router integrated with Voce Over IP Soft Switch and advanced PBX features. It enrich router features give SOHO users easy connection either to internet or to another router on your network. SP-688 has separate WAN and LAN Ethernet port. The WAN connection can be connect through DHCP, PPPoE , PPPT or a fixed IP address. The LAN port can assign IP address to IP telephones and computers using NAT and DHCP.

SP-688 delivers the secure, reliable, high performance WLAN workforce demands. Four products in one, the multitalented firewall router, NAT/DHCP router, Wireless 802.11b/g Access Point and IP-PBX. It delivers broadband access that's continuously available for sharing with all user networked devices. Simple to use, just plugs directly into your ADSL or Cable line for instant connectivity to network resources and the Internet. Easy setup, with our Smart Wizard install assistant helps to guide user each step of the way and upgradeable enhancements are available via the Web browser.

The SP-688 IP-PBX support common PBX features such as auto-attendant, voice mail, three way conferencing, call forwarding, call park, intercom, call transfer and much more. As well, SP-688 also support advanced PBX features such as working day/holiday greeting, voice mail notification by e-mail and expandable voice mail memory by using USB memory stick. With these various VoIP call features, SOHO users not only benefit with low cost long distance phone service, mobility telephone extension but also data, voice integration in one network.

With Senao high power 802.11b/g Wi-Fi module, SP-688 also give a much better coverage and data access in any SOHO environment. Office mobility can be easily achieved by using Senao Wi-Fi phone which support both WEP, WPA of Security and WMM of QoS. SP-688's highly integration of data and voice is the best solution for SOHO market.

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HARDWARE SPECIFICATION		
USB Host	VIA VT6212L USB 2.0 Host Controller.	
Wireline Ethernet	Single PHY RTL8201CP(WAN and LAN)	
Expansion Slots	Mini-PCI Slots Battery Slot	For WLAN Module For lithium/manganese coin battery Module
I/O Connector	Multi ICE 2x16 PIN Header x 1 USB Host v2.0 Type A x 1 RS-232 2x5 PIN Header x 1 Telephone voice RJ11 FXS and FXO Port x 1 10/100Mbps Ethernet RJ-45 WAN and LAN Port x 1 CPLD burn in 1X8 PIN Header x 1	
Power and Reset	Power Jack for DC 12V@1.25A input. Reset Button A Reset Button B	 Reset to Factory Default System Reset (Debug only)

SOFTWARE SPECIFICATIONS		
Telephony	FXS Port	1 FXS port for analog phone
	FXS Port	1 FXO port for PSTN (Life Line)
VoIP	Voice protocol	SIP V2 (RFC3261, 3262, 3263, 3264)
	SIP Features	SIP application server Proxy Registry Location server (RFC3263) STUN client (Optional)
	VOIP users	10 + 1 registrations 11 voicemail accounts Meet Me conference room (3 user) Up to 5 Out-bound SIP accounts
	Account Setting	User Setting Group Setting User and Group List Voicemail (maximum internal capacity 30 minutes)
	VoIP Setting	Outbound SIP Setting Dial Plan Setting
	VoIP Information	Call Monitor SIP Registry SIP Peers Info Call Detail Record
	Management	Web based SIP Call manager
	Call routing	Smart Routing Rule

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		Route by called number
	Codecs(Supported in FXS)	G.711a law, G.711u law G.729A
	Codecs(Supported in IP phones)	G.711a law, G.711u law G.729A
LAN	Number	1
	LAN port speeds	10/100 Mbps auto negotiation
	DHCP servers	Three DHCP pools Dedicated IP address for particular clients (MAC) Connection list
WAN	Number	1
	WAN port speeds	10/100 Mbps auto negotiation
	Connection types	Static IP DHCP (Clone MAC address for WAN included PPPoE PPTP (Optional)
	Dynamic DNS	Support
Router	NAT	Many-to-one
	ALG	Supported (FTP, IRC, NNS, PPTP, SNMP, TFTP)
	Port Forwarding	with scheduling function
	Port Triggering	with scheduling function
	Firewall	Block PING from WAN DMZ
	Filtering	MAC address filtering with scheduling function IP Filtering with scheduling function Application Filtering (P2P, MSN) with scheduling function Block Sites URL-Keyword blocking
	VPN	PPTP, IPSEC, L2TP pass through
	QoS	Priority Queue (2 Queue, IP Port based) Bandwidth Allocation (VOIP, and FTP)
Firewall	Stateful Packet INSP	Supported
	IP Related	LAND attack zero length IP option corrupted IP option Unknown IP Protocol Smurf attack IP source route IP unaligned time

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		IP spoofing
	UDP Related	UDP short header Snork Attack Ascend Attack UDP flood Trinoo (Distributed UDP flooding) Fraggle
	TCP Related	SYN Flooding SYNK4 TCP with URG flag TCP with PSH flag Zero length TCP option TCP FIN scan TCP XMAS scan TCP null scan TCP short header Linux Blind TCP Spoofing
	ICMP Related	Ping of Death=Bigping (oversized ICMP) Twinge Attack ICMP flooding=Flushot ICMP unreachable strom Ping Sweep(probing) Echo storm
Wireless	Wireless	IEEE802.11b/g
	Data Rate	802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps 802.11b：1, 2, 5.5, and 11 Mbps
	Frequency band	2.412~2.462GHz (US) 2.412~2.484GHz (Japan) 2.412~2.472GHz (Europe ETSI)
	Channels	11 channels (US/Canada) 14 channels (Japan) 13 channels (Europe ETSI)
	Modulation	802.11b: DSSS (DBPSK,DQPSK,CCK) 802.11g: OFDM (64QAM,16QAM,QPSK,BPSK)
	Transmit power	up to 20 or 23 dBm(High Power)
	Security	WPA / WPA2 WEP 64/128bit
	QoS	WMM
	Others	Data Rate, Transmit Power, Beacon Interval, DTIM Interval, Fragment Length, Preamble Type, RTS/CTS Threshold, and Hide SSID
Management/ Configuration	Interface	Management through WAN/LAN/WLAN (full functions)
	Application	Web based management HTTP

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	Sys log	Web based
	Telnet CLI	Supported
	SNMP V2/V3	Optional
	FW upgrade	via Browser and FTP
	Firmware integrity	With MD5 checksum
	Configurations	Backup and Re-store via Browser
Application	NTP client	Supported
	NTP Daemon	Supported
	Autoprovisioning Server	For easy Wi Fi IP phone configuration/IP phone
	Mail client	For CDR reports
Storage	USB port	Support storing voice messages in USB flash disk

PBX Features

- SIP Application Server, Proxy, Registrar and Location Server (RFC3261)
- Multiple Service Provider Lines / SIP Account Support (5)
- Automated Attendant (AA)
- Configurable Call Routing
    - Least Cost Routing
    - Call Routing to Multiple Extensions or Targeted User
- Phone Configuration and Management Server
    - Auto-provision to IP Phones and WiFi phones
    - Assignment of Extension

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- Configuration and Maintenance via Web Interface (Local or Remote)
- Call Park - User Definable Parking Space Number
- Call Forward Unconditional, No Answer, On Busy
- Group Paging
- Directed Call Pick Up
- Music On Hold
- Do Not Disturb
- Voice Mail Integration
- Differentiated Services (DiffServ) / Type of Service (TOS) Support
- Call Hold
- Call Waiting
- Call Transfer - Attended and Blind
- Call Conferencing for 3 Way(Support by IP-Phone)
- Meet me conference(3 parties)
- Automatic Redial (Base on IP Phone)
- Require Admin Password to Reset Unit to factory Defaults

Environment

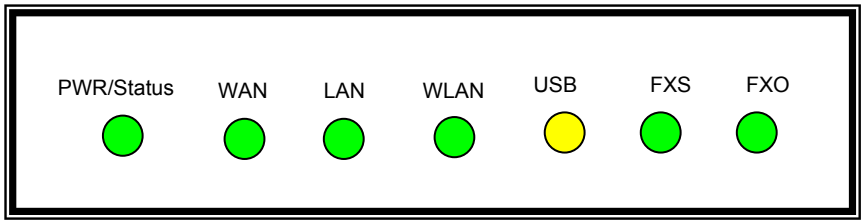
- Dimensions (H x W x D): 45 x 222 x 147 mm
- Weight: 493 g
- Power: Switching Type(100~240V), DC input Voltage: 12 VDC at 1.6A Max.
- Operating Temperature : 0C~ 50C(14 ~122F)
- Storage Temperature : -40C~ 70C(-40F ~158F)
- Humidity : 10% ~ 90% Non-condensing

Standard Package

- 1 - SP-688 Main Unit
- 1 – 12V Power Adapter
- 1 – User Manual
- 2 – Detachable Antenna

LED and Physical Interface

Front Panel :



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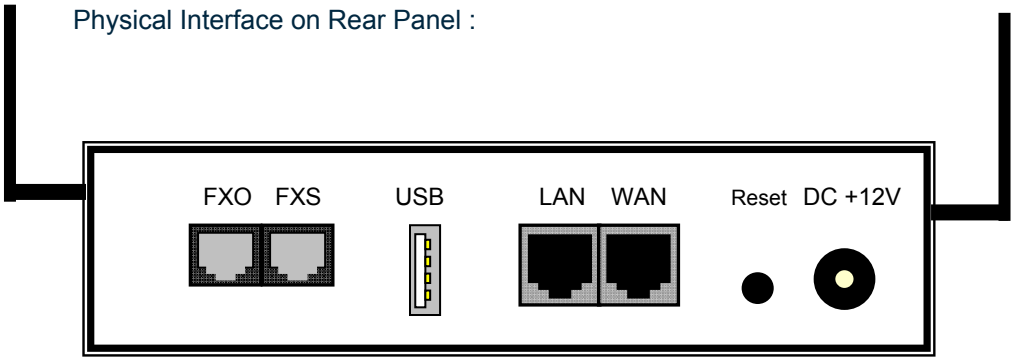
LED STATUS	
WAN LED	1 (Link->green on, traffic->blink)
LAN LED	1 (Link->green on, traffic->blink)
WLAN LED	1 (Link->green on, traffic->blink)
FXS LED	1 (On->green)
FXO LED	1 (On->green)
Power/Status LED	1 (On->green Test/reset default->blink)
USB LED	1 (Link->Yellow, traffic->blink)

Physical Interface on Rear Panel :



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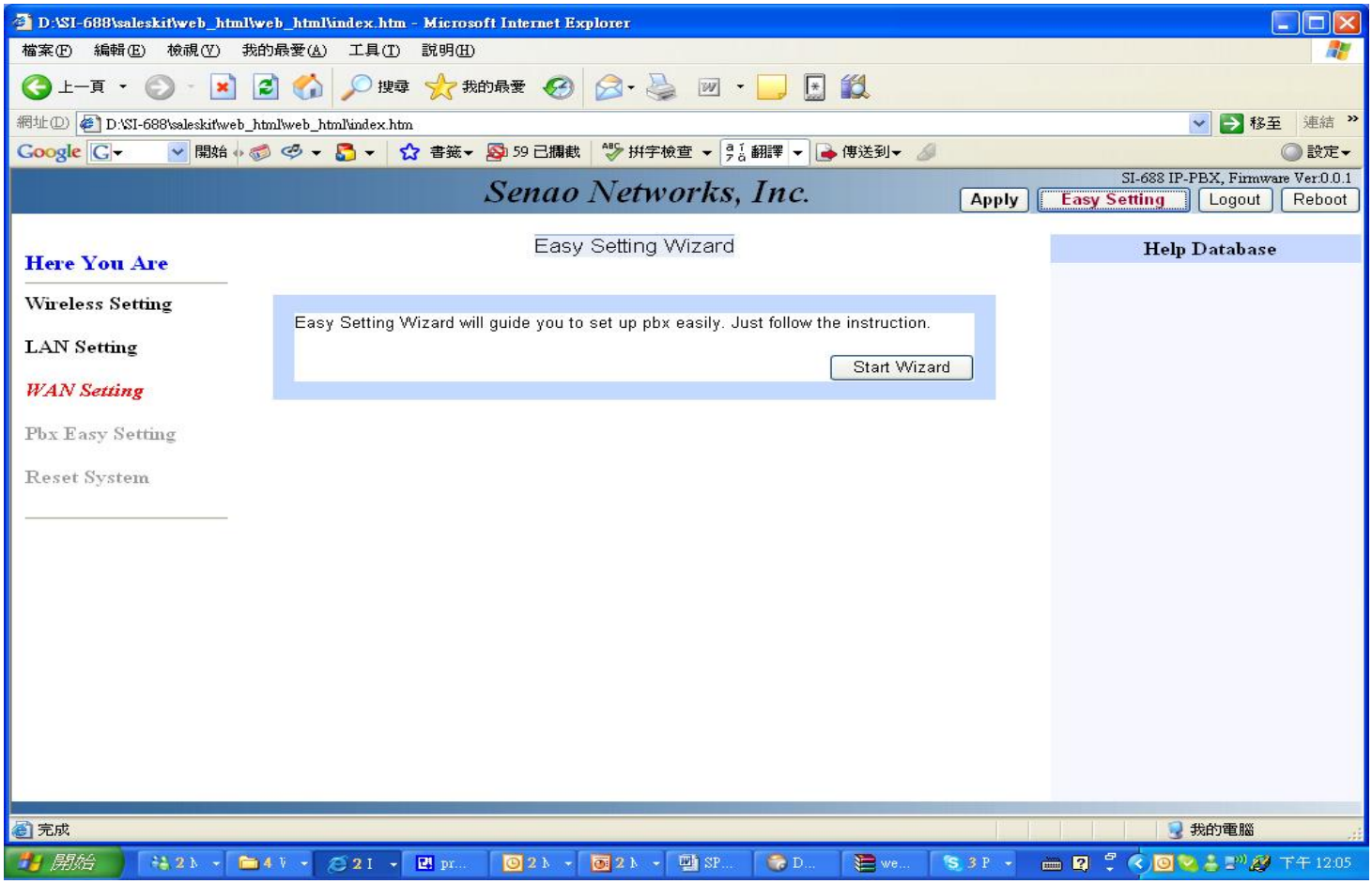
Configure GUI – Smart Wizard



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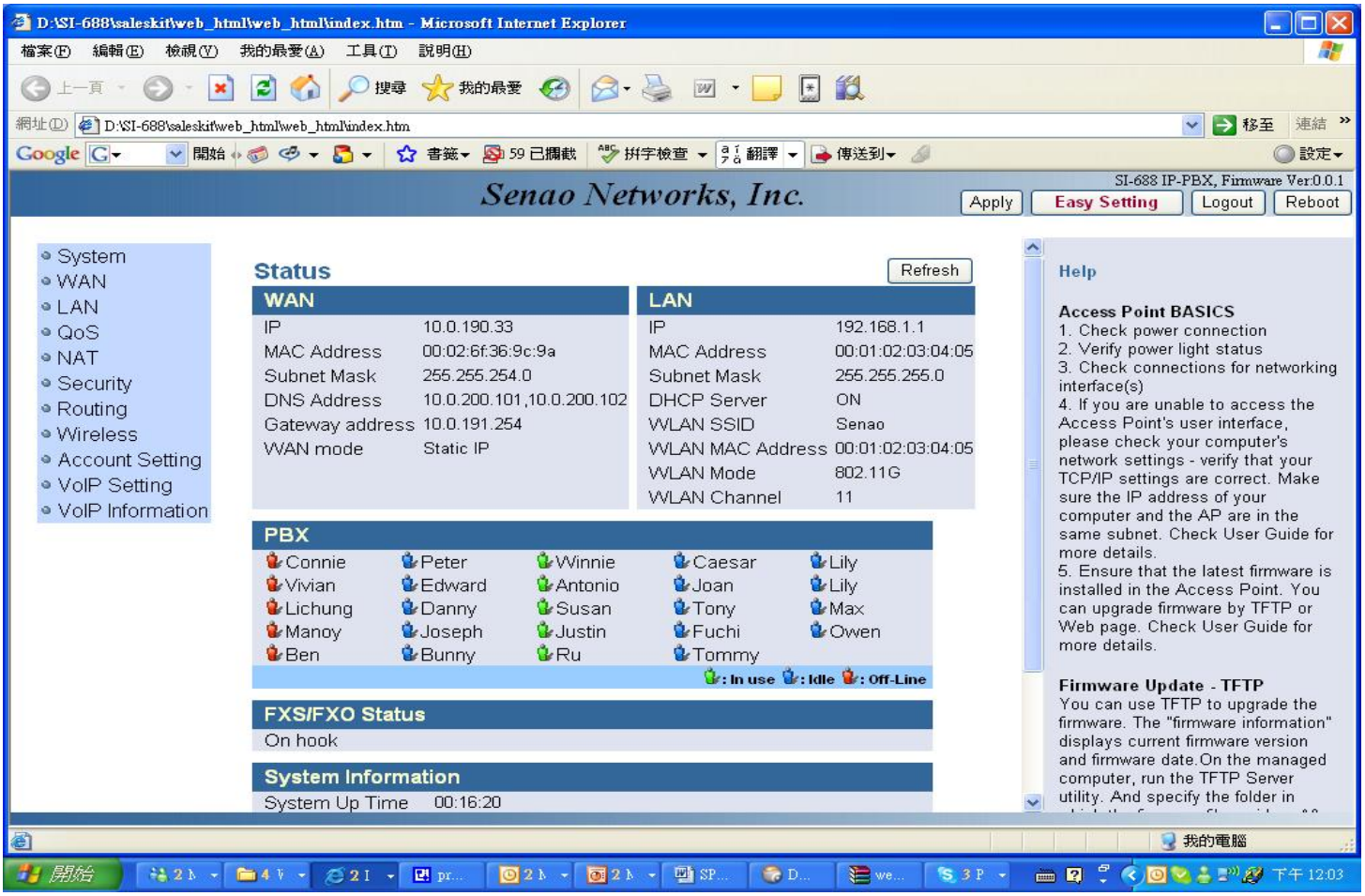
Advance Setup



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